

What is claimed is:

1. An active dynamic damper comprising: a supporting member having a mounting plate portion; a mass member disposed on the side of a surface of the mounting plate portion such that it is departed from the mounting plate portion; a rubber elastic body connecting portion which connects the supporting member with the mass member elastically; and a vibration means which generates a driving force by inputting a control pulse signal corresponding to vibration of a vibration generating source to the same vibration means and vibrates said mass member, said mounting plate portion being fixed on a vibration damping object member, wherein said mounting plate portion is fixed on the vibration damping object member through a rubber elastic supporting portion such that it is departed from said vibration damping object member.
2. The active dynamic damper according to claim 1 wherein said control pulse signal is formed by overlaying a pulse width modulated carrier signal having a control frequency of several kHz    several tens kHz on a reference pulse signal having the same frequency as the vibration frequency of an input pulse signal corresponding to vibration of a vibration generating source and adjusted in terms of phase and gain.
3. The active dynamic damper according to claim 2 wherein a resonance frequency of said rubber elastic body supporting portion with respect to said mass member is set up to a frequency region higher than said vibration frequency and lower than the control frequency of said carrier signal.